

REMARKS

Claim 1 has been amended to incorporate the recitations of claim 2, and claim 3 has been amended to incorporate the recitations of claim 4.

Entry of the above amendments is respectfully requested.

Art Rejections

On page 2 of the Office Action, in paragraph 1, claims 1-4, 9, 10, 13, 14, 17, 18, and 21-30 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. as obvious over Kawauchi et al. Also, on page 3 of the Office Action, in paragraph 2, claims 1-4, 9, 10, 13, 14, 17, 18 and 21-30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Endo et al. '490.

Applicants submit that the invention as recited in the amended claims is not anticipated by or obvious over the cited art, and request that the Examiner reconsider and withdraw this rejection in view of the following remarks.

1) Kawauchi et al. and Endo et al. disclose subjecting Al supports to group 4 metal treatment in order to improve their hydrophilicity. The Examiner indicates in the Office Action that it would have been obvious to arrive at the present invention from the description of Kawauchi et al. and Endo et al. in order to improve wettability, but Applicants submit that the Examiner's technical position is inappropriate.

If wettability of the Al support mentioned by the Examiner is water wettability of the support, page 1 of the present specification describes that the hydrophilicity of the support and the scum resistance will improve.

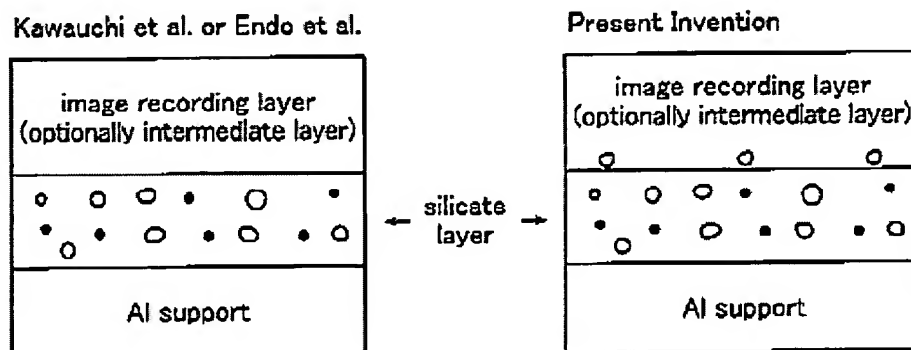
However, if wettability of the Al support mentioned by the Examiner is wettability between an image recording layer and the support, page 2 of the present specification describes the deterioration in the adhesion of an image recording layer to a support, as follows.

"However, if a hydrophilic treatment is performed on the surface of a support for a lithographic printing plate, there is a case that an adhesion between an image recording layer which is hydrophobic and a support deteriorates in a presensitized plate, and press life deteriorates when processed into a lithographic printing plate."

2) The present invention has been amended so that claims 1 and 3 expressly recite performing a treatment with aqueous solution containing a cation following the hydrophilic treatment. Neither Kawauchi et al. nor Endo et al. describe performing a treatment with aqueous solution containing a cation following the hydrophilic treatment. Kawauchi et al. and Endo et al. merely state that the hydrophilic treatment solution may include group 4 metals. The present invention performs treatment with an aqueous solution including specific cations with a specific range of concentration following the hydrophilic treatment, with the effect that the resulting lithographic printing plate has improved scum resistance and press life.

3) The cross section of the lithographic printing plate subjected to the hydrophilic treatment solution of Kawauchi et al. and Endo et al. containing group 4 metal can be compared to that of

the lithographic printing plate obtained in the present invention subjected to the hydrophilic treatment and the treatment with aqueous solution containing a specific cation, as follows.



Thus, even if the hydrophilic treatment layer in Kawauchi et al. or Endo et al. includes group 4 metal, there is no improvement to the adhesion with an image recording layer.

4) Kawauchi et al. solves the problem of deteriorating press life from hydrophilic treatment by performing water treatment using water containing a predetermined amount of alkali-earth metal after hydrophilic treatment to have a predetermined ratio of the number of atoms of alkali-earth metal and silicon existing on the surface, as an example.

In contrast, the present invention solves the problem by performing treatment using an aqueous solution including a specific cation with a specific range of concentration, following the hydrophilic treatment.

5) It is suggested that even if group 4 metal is contained in the hydrophilic treatment layer of Kawauchi et al. and Endo et al., the hydrophilicity will improve, but if the hydrophilicity improves, the adhesion to the image recording layer will deteriorate, and the

press life will deteriorate. Thus, even if the hydrophilic layer of Kawauchi et al. or Endo et al. contains group 4 metal, one skilled in the art would expect that the hydrophilicity will improve and the press life will deteriorate. That is, the cited references do not suggest the structure of a metal ion aqueous solution treatment that would improve the press life or the effect thereof.

6) The present inventors believe that in the present invention, attaching a specific metal element to the support surface with improved hydrophilicity from the hydrophilic treatment, at a concentration lower than a metal ion concentration during the hydrophilic treatment, will lead to a newly created layer improving the press life by improving the adhesion with an image recording layer. Even if group 4 metal is contained in the hydrophilic treatment layer of Kawauchi et al. or Endo et al., the cited references have no description of a metal ion aqueous solution treatment improving press life; thus, the present invention is not suggested by the cited references.

7) Amended claim 3, as a method claim, includes treatment not described in the cited references, and the cited references do not even suggest the effect from the treatment; thus, Applicants believe that claim 3 is patentable as a method claim. Also, amended claim 1, which recites the combination of the support and the image recording layer obtained by the method recited in claim 3, includes a layer treated by a new aqueous solution including a specific cation with a concentration in a specific range, which is not described in either of the cited references as improving the adhesion of the support to the image recording layer

intervening therebetween. Thus, Applicants submit that claim 1 is also new and nonobvious, and should be allowed.

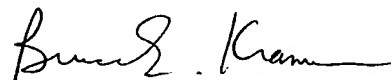
Accordingly, Applicants submit that the invention as recited in the present invention is neither anticipated by nor obvious over the cited references, and withdrawal of these rejections is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Bruce E. Kramer
Registration No. 33,725

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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